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EXAMINER

FRENEL, VANEL

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
6

7
8 *Ex parte* PRUDENCE A. MCINTOSH, D. PAUL STANNARD, JOAN B.
9 RABAUT, MICHAEL J. MAHONEY, and DANNY L. LAETHEM
10

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12 Appeal 2009-003914
13 Application 09/800,697
14 Technology Center 3600
15

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17 Decided:¹ June 22, 2009
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20 Before HUBERT C. LORIN, ANTON W. FETTING, and
21 BIBHU R. MOHANTY, *Administrative Patent Judges*.

22
23 FETTING, *Administrative Patent Judge*.
24

25
26 DECISION ON APPEAL
27

28 STATEMENT OF THE CASE

¹ The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

1 Prudence A. McIntosh, D. Paul Stannard, Joan B. Rabaut, Michael J.
2 Mahoney, and Danny L. Laethem (Appellants) seek review under
3 35 U.S.C. § 134 of a non-final rejection of claims 1-20, the only claims
4 pending in the application on appeal.

5 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b)
6 (2002).

7 We REVERSE.

8 The Appellants invented a computer-based vehicle warranty and
9 repair expert system (Spec. 1:3-5).

10 An understanding of the invention can be derived from a reading of
11 exemplary claim 1, which is reproduced below [bracketed matter and some
12 paragraphing added].

13 1. A computer-implemented warranty knowledge base
14 construction system, comprising:

15 [1] a user interface for receiving a first rule related to vehicle
16 repair claim processing;

17 [2] a rules syntax data store that stores syntax rules for
18 constructing repair claim-related rules;

19 [3] a knowledge base generator module connected to the user
20 interface and to the rules syntax data store for determining
21 whether the first rule is in an acceptable syntax based upon the
22 stored syntax rules;

23 [4] wherein the first rule is used in a knowledge base system
24 to process repair claims.

25
26 This appeal arises from the Examiner's Non-Final Rejection, mailed
27 October 19, 2006. The Appellants filed an Appeal Brief in support of the
28 appeal on March 8, 2007. An Examiner's Answer to the Appeal Brief was
29 mailed on July 17, 2007. A Reply Brief was filed on September 13, 2007.

PRIOR ART

The Examiner relies upon the following prior art:

Sampath	US 6,892,317 B1	May 10, 2005
Abdel-Malek	US 6,959,235 B1	Oct. 25, 2005

REJECTIONS

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Abdel-Malek and Sampath.

ISSUES

The issue pertinent to this appeal is whether the Appellants have sustained their burden of showing the Examiner erred in the rejection of claims 1-20 under 35 U.S.C. § 103(a) as unpatentable over Abdel-Malek and Sampath. The pertinent issue turns on whether Sampath describes a rules syntax data store that stores syntax rules for constructing repair claim-related rules and a knowledge base generator for determining whether rules are in acceptable syntax based on the syntax rules.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Abdel-Malek

01. Abdel-Malek is directed to a method and system for receiving repair recommendations and related information from a central diagnostic and repair service (Abdel-Malek 1:9-12).

02. The method begins with a technician, with a portable unit, approaching a mobile asset that may require repairs. The portable

1 unit is capable of communication with a service center (Abdel-
2 Malek 4:10-18).

3 03. The portable unit exchanges repair, maintenance, and
4 diagnostic information with the service center, including parts
5 information and warranty information (Abdel-Malek 4:24-30).

6 04. The technician has access to repair resources, repair manuals,
7 field modification instructions, schematics, block diagrams, and
8 special software tools related to the repair task (Abdel-Malek 5:1-
9 6).

10 05. Additionally, repair experts at the service center can provide the
11 technician with individualized assistance via the portable unit
12 (Abdel-Malek 5:11-14). The repair experts analyze the
13 information and produce a recommendation that is provided to the
14 technician in a timely fashion so as to enhance the degree of
15 accuracy in carrying out the repair procedure (Abdel-Malek 5:59-
16 65). An expert repository stores the repair recommendations
17 authored at the service center (Abdel-Malek 7:19-21).

18 06. An interface unit conditions data between the portable unit and
19 various information sources (Abdel-Malek 7:6-18).

20 *Sampath*

21 07. Sampath is directed to an electronic system for failure
22 prediction, diagnosis, and remediation of an electronic system
23 (Sampath 1:10-13).

24 08. The monitored electronic system generates status information
25 (Sampath 4:55-58). The status information is forwarded to the
26 diagnostic server (Sampath 5:39-43), which then forwards the

1 status to the data acquisition circuit (Sampath 5:51-55). The data
2 acquisition circuit further forwards the status to the database and
3 to the prediction/diagnostics circuit (Sampath 5:55-58). The
4 prediction/diagnostics circuit determines whether that electronic
5 system has failed or is predicted to fail (Sampath 5:64-67). If a
6 failure is detected or predicted, the repair planning circuit
7 determines a corrective repair action (Sampath 6:5-7). During the
8 diagnostic analysis, one or more secondary knowledge sources can
9 be accessed to acquire additional information and/or expertise
10 (Sampath 6:13-16).

11 09. The prediction/diagnostics circuit determines if the status
12 information is “prediction” or diagnostic” information. Prediction
13 information is defined as any status information which is pertinent
14 to determining whether an action should be taken to avoid a
15 particular impending outcome (Sampath 6:17-21). The
16 prediction/diagnostic analysis can be done by a rule using
17 parameters stored in the database. For example, for a threshold
18 analysis, the threshold value, stored in a database, and a rule can
19 be used to determine whether any value is in danger of crossing a
20 threshold (Sampath 6:38-46).

21 10. The diagnostics and prognostics analysis involves a more
22 detailed analysis and may include invocation of a reasoning
23 algorithm or an expert system. The diagnosis analysis results are
24 stored in a database (Sampath 10:16-25).

25 11. The system is preferably implemented on a single program
26 general purpose computer or a separate programmed general

purpose computer (Sampath 12:53-67). The methods may be readily implemented as software or a routine embedded on a personal computer such as Java or CGI script (Sampath 13:19-33).

Facts Related To The Level Of Skill In The Art

12. Neither the Examiner nor the Appellants has addressed the level of ordinary skill in the pertinent art knowledge base system development. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown’”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

Facts Related To Secondary Considerations

13. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Obviousness

A claimed invention is unpatentable if the differences between it and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a) (2000); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

1 In *Graham*, the Court held that the obviousness analysis is bottomed
2 on several basic factual inquiries: “[(1)] the scope and content of the prior art
3 are to be determined; [(2)] differences between the prior art and the claims at
4 issue are to be ascertained; and [(3)] the level of ordinary skill in the
5 pertinent art resolved.” 383 U.S. at 17. *See also KSR*, 550 U.S. at 406.

6 “The combination of familiar elements according to known methods is likely
7 to be obvious when it does no more than yield predictable results.” *Id.* at
8 416.

9 “When a work is available in one field of endeavor, design incentives
10 and other market forces can prompt variations of it, either in the same field
11 or a different one. If a person of ordinary skill can implement a predictable
12 variation, § 103 likely bars its patentability.” *Id.* at 417.

13 “For the same reason, if a technique has been used to improve one
14 device, and a person of ordinary skill in the art would recognize that it would
15 improve similar devices in the same way, using the technique is obvious
16 unless its actual application is beyond his or her skill.” *Id.*

17 “Under the correct analysis, any need or problem known in the field
18 of endeavor at the time of invention and addressed by the patent can provide
19 a reason for combining the elements in the manner claimed.” *Id.* at 420.

20
21 ANALYSIS

22 *Claims 1-20 rejected under 35 U.S.C. § 103(a) as unpatentable over*
23 *Abdel-Malek and Sampath*

24 The Appellants argue these claims as a group.

25 Accordingly, we select claim 1 as representative of the group.

26 37 C.F.R. § 41.37(c)(1)(vii) (2008).

1 The Examiner found that Abdel-Malek describes limitations [1] and
2 [4] of claim 1, but fails to describe limitations [2] and [3] (Ans. 3-4). The
3 Examiner found that Sampath describes limitations [2] and [3] (Ans. 4). The
4 Examiner further found that a person with ordinary skill in the art would
5 have recognized the benefits of the ease of use, productivity gains, and cost
6 savings by making the claim rules and syntax readily available, as described
7 by Sampath, and a person with ordinary skill in the art would have found it
8 obvious to combine Abdel-Malek and Sampath (Ans. 4).

9 The Appellants contend that Sampath fails to describe a rule syntax
10 data store for storing syntax rules and a knowledge base generator that
11 determines whether the first rule is in acceptable syntax as required by claim
12 1, limitations [2] and [3] respectively (Br. 12-13 and Reply Br. 4-5).

13 The Examiner has relied on Sampath to describe syntax rules in the
14 rejection of claim 1 (Ans. 4). The Examiner argued in response that no
15 special definition for the term “syntax rules” has been provided in the
16 Specification and that the definition for syntax in programming languages is
17 that which controls rules as to structure and content of statements (Ans. 9).
18 The Examiner further argued that Sampath describes that its system can be
19 implemented using software and as such the programming language used in
20 programming the software relies on syntax rules (Ans. 10).

21 We agree with the Appellants. Claim 1 recites the use of syntax rules
22 for constructing repair-related claims. The Examiner and the Appellants
23 agree that the plain meaning of the term “syntax rules” is the rules that
24 govern the formation of statements (Reply Br. 4 and Ans. 9). As such, the
25 construction of limitation [2] in light of the plain meaning of syntax rules
26 requires that there exist a set of rules that govern the formation of

1 constructing claim-related rules. The syntax rules used in a programming
2 language govern the construction of statements used in that programming
3 language. However, those syntax rules are not used to govern the
4 construction of claim-related rules. We find no evidence that Sampath
5 describes using the syntax rules of a programming language towards
6 constructing claim-related rules. The Examiner has not provided any
7 evidence that either reference even stores claim-related rules as data apart
8 from the program executing the procedure itself. The syntax checking the
9 Examiner refers to in programming languages is not applied to the data at
10 run time, and only occurs when the program is compiled, not at run time.
11 But most critically, the claim specifically requires that the rules be in the
12 form of data that are checked for syntax, and the Examiner has not shown
13 that either reference provides such. At best, the references describe storing
14 parameters that might be used in rules (FF 09), but with no evidence that
15 syntax checking would occur on the rules that might be used with those
16 parameters.

17 As such, Sampath does not describe a rule syntax data store for
18 storing syntax rules and a knowledge base generator that determines whether
19 the first rule is acceptable syntax as required by claim 1. Claim 11, the only
20 other independent claim, has similar limitations, and its rejection is similarly
21 in error. Since this issue is dispositive as to the rejections against claims 1-
22 20, we need not reach the remaining arguments raised by the Appellants
23 against these rejections.

24 The Appellants have sustained their burden of showing that the
25 Examiner erred in rejecting claims 1-20 under 35 U.S.C. § 103(a) as
26 unpatentable over Abdel-Malek and Sampath.

CONCLUSIONS OF LAW

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1-20 under 35 U.S.C. § 103(a) as unpatentable over Abdel-Malek and Sampath.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 1-20 under 35 U.S.C. § 103(a) as unpatentable over Abdel-Malek and Sampath is not sustained.

REVERSED

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